

ABSTRACT OF THE DISCLOSURE

Rather than finding an entirely new path to avoid a single failure of a path segment in an original path, a backup path is established at the time of the set up of the original path and, responsive to the single failure, the backup path is used to route traffic around the failed path segment. A number of working links that employ a given fiber between a head end node and a tail end node and require a gold level of protection may be logically considered a "working bundle". A backup Label Switched Path (LSP) may be set up between the head end node and the tail end node to protect each of the working links in the working bundle such that, in the event of a failure in the fiber, each of the working links in the working bundle may be switched to a logical association of backup LSPs, i.e., a "backup bundle".